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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/858,154	05/15/2001	Alan G. MacDiarmid	UPI-007	9148
7590 10/29/2003 Woodcock Washburn LLP One Liberty Place 46th Floor Philadelphia, PA 19103			EXAMINER TALBOT, BRIAN K	
			ART UNIT 1762	PAPER NUMBER

DATE MAILED: 10/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/858,154	Applicant(s) MACDIARMID ET AL.	
	Examiner Brian K Talbot	Art Unit 1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-108 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-108 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2/7/02</u> | 6) <input type="checkbox"/> Other: _____ |

1. The amendment filed 8/12/03 has been considered and entered. Claims 109-157 have been canceled. Claims 1-108 remain in the application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,28,47 and 57 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Popat et al. (6,080,261), Chang et al. (5,650,199), GB 833,000 or GB 1,095,117.

Popat et al. (6,080,261) teaches an adhesive image transfer technique whereby and adhesive layer is applied to a substrate and an image printing ink layer is applied thereto. The adhesive layer is hydrophilic or hydrophobic depending upon the desired absorbancy of the subsequent ink layer (col. 1, lines 35-50).

Chang et al. (5,650,199) teaches making a multi-layered circuit board comprising applying via ink on a substrate, applying ceramic material to the via ink and the substrate whereby there is incompatibility between the ink and ceramic material leading to a physical/chemical reaction the removes the ceramic material from the ink thereby forming a via. A contact electrode layer is applied to the via ink to complete the structure (Abstract).

GB 833,000 teaches a circuit outline is applied to a substrate to form a circuit base plate. A metal powder is applied thereto and sticks to the circuit base plate. Excess powder is removed and components are solder thereon by applying a solder layer to the metal powder layer (pg. 1, line 70 – pg. 2, line 55).

GB 1,095,117 teaches making a printed circuit by applying an adhesive to a substrate, dusting metal powder which adheres to the adhesive and plating the metal powder to form the circuitry (pg. 1, line 35-50 and pg. 2, line 40-90).

Claim Rejections - 35 USC § 103

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2-27,29-46,48-56,58-108 rejected under 35 U.S.C. 103(a) as being unpatentable over Popat et al. (6,080,261), Chang et al. (5,650,199), GB 833,000 or GB 1,095,117.

Popat et al. (6,080,261), Chang et al. (5,650,199), GB 833,000 or GB 1,095,117 are silent upon the specific deposition technique, line resolution, pattern, removal of first coating, etc.


Features described above are incorporated here.

While the Examiner acknowledges these facts, it is the Examiner's position that these limitations are matter of design choice and would have been within the skill of one practicing in the art. The main concept of applying a first layer and a second layer where there is an "interaction" there between resulting in the deposition of the second layer is taught.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian K Talbot whose telephone number is (703) 305-3775. The examiner can normally be reached on Monday-Friday 6AM-3PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P Beck can be reached on (703) 308-2333. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3775.


Brian K Talbot
Primary Examiner
Art Unit 1762

BKT